

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte Fuller et al.

Appeal No. _____

Serial No.: **09/723,099**
Filed: **November 27, 2000**
Group Art Unit: **2642**
Examiner: **Inder P. Mehra**
Applicant: **Fuller et al.**
Title: **SYSTEM AND DEVICE FOR INTEGRATING IP AND
ANALOG TELEPHONE SYSTEMS**

Cincinnati, Ohio 45202

July 24, 2006
Via EFS-WEB

APPEAL BRIEF

This brief is in furtherance of Applicant's Notice of Appeal filed January 23, 2006, appealing the decision of the Examiner dated July 22, 2005 finally rejecting claims 1-33. A copy of the claims appears in the Appendix to this brief.

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/Thomas W. Humphrey/

July 24, 2006

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Date

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Real Party In Interest

The real party in interest in this appeal is the inventors themselves and Watters Designs, Inc. of 4801 Spring Valley Road, Suite 108B, Dallas, TX 75244.

Related Appeals and Interferences

There are no such appeals or interferences.

Status of Claims

Claims **25-33** stand rejected under 35 U.S.C. 112, first paragraph, for assertedly lacking supporting written description in the original specification.

Claims **1-33** stand rejected under 35 U.S.C. 103(a), asserted to be obvious, as follows:

Claims **1-2, 5-6, 8-11, 13-14, 17-18, 20-23, 25** and **32** are rejected as unpatentable over **Jones et al**, U.S. Patent No. 6,404,764 (“Jones”), in view of **Umansky et al**, U.S. Patent No. 6,868,080 (“Umansky”).

Claims **3-4, 15-16** and **28** are rejected as unpatentable over Jones and Umansky and further in view of **Scott et al**, U.S. Patent No. 6,760,324 (“Scott”)

Claims **29-30** are rejected as unpatentable over Jones, Umansky , Scott and **Packer et al**, U.S. Patent No. 6,205,120 (“Packer”)

Claim **31** is rejected as unpatentable over Jones and Umansky and further in view of **Zhang et al**, U.S. Patent No. 6,661,785 (“Zhang”) and **Turner et al**, U.S. Patent No. 6,718,030 (“Turner”)

Claim **33** is rejected as unpatentable over Jones and Umansky and further in view of **Murphy et al** U.S. Patent No. 6,282,192 (“Murphy”).

Claims **7** and **19** are rejected as unpatentable over Jones and Umansky and further in view of Zhang.

Claims **12** and **24** are rejected as unpatentable over Jones and Umansky and further in view of **Aldous et al**, U.S. Patent No. 6,654,722 (“Aldous”)

Claims **26** and **27** are rejected as unpatentable over Jones and Umansky and further in view of **Whitridge et al**, U.S. Patent No. 6,119,179 (“Whitridge”)

Claims **1-33** were originally filed with the application. Applicant's Amendment of February 25, 2005, amended claims 1, 5-7, 13-25 and 27. ...

Status of Amendments

There are no amendments pending.

Summary of Claimed Subject Matter

The presently claimed invention relates to a novel method for providing voice over IP service to a location that is served by an Internet connection and analog telephone service, in a way that need not require that location to also have a voice gateway for converting between analog and IP telephony. Rather, a remote voice gateway is used.

What is clearly unique in the claimed system, is the "call forwarding manager" recited by each claim, and seen in Fig. 1 at 24. The call forwarding manager achieves two important functions. First, it has the ability to communicate over digital networks to generate a "request for service" such as to trigger action by a voice gateway, and second, it has analog telephony capabilities enabling it to "receiv[e] an analog telephone call" (claims 1 and 13) or collect data from an analog telephone call such as DNIS and/or ANI (claim 25). This combination allows the "call forwarding manager" to receive calls in the same manner as any analog telephone system, and then trigger activity to transfer or "forward" the call to allow a separate device, the remote "voice gateway", to convert the call from analog telephony to IP telephony.

Receipt of an incoming VOIP telephone call is illustrated in Fig. 2A and described beginning at page 17. In the steps of this figure, an incoming VOIP call is terminated at the subscriber location by call forwarding manager 24 (step 100). The call forwarding manager then uses a table to identify a desired IP telephone at the subscriber location and rings that telephone using H.323 protocol (step 104). If the call is busy or does not answer (step 106) the call is terminated or is provided advanced services (step 108). If the call is answered the call is relayed over the Internet (step 112) and voice data is exchanged (step 114).

Receipt of a POTS (analog) telephone call also uses call forwarding manager 24 at the subscriber location, in conjunction with other elements which need not be at the subscriber location. These functions are shown in Fig. 2B and described in the specification at pages 19 et seq. Incoming POTS calls are terminated at the call forwarding manager 24 (step 122 in Fig. 2B). The CFM 24 captures the DNIS and optionally the ANI of the call (step 124 in Fig. 2B), and then generates a VOIP request to a call manager 46 (step 126, Fig. 2B) along with the DNIS and ANI. The call manager 46 then instructs the telephone company switch to deliver the call to the voice gateway 44 (steps 128 or 129, Fig. 2B) and the voice gateway then converts the call to VoIP and delivers the call to a pre-assigned IP telephone (steps 136 and 140). The call may then proceed as a VoIP call.

Because the "call forwarding manager" can forward out a received call to a remote voice gateway, it allows an organization to use IP telephony without necessarily having a local voice gateway, a substantial savings and opening up substantial new opportunities for IP telephony.

Thus, uniquely, as recited in claims 1 and 13, an "analog telephone call" that is "receiv[ed] ... at [the] call forwarding manager", can be "connect[ed] via [a] voice gateway to [an] Internet protocol telephone", that is, an analog telephone call is moved from an original recipient device (the call forwarding manager) to a different recipient device (the voice gateway) to enable it to be handled by an IP telephone.

While this functionality is unique, the "call forwarding manager" is per se unique in function, because, as recited in claim 25, it has an analog telephone connection where it

captures one or both of DNIS and ANI from an analog telephone call, and also has a digital connection from which it generates requests with one or both of the DNIS and ANI.

For the purpose of illustration, consider the following example. A catalog mail order company has only ONE 1-800 analog telephone line, but has hundreds or thousands of customer service personnel waiting to take phone orders, each on his/her own Internet Protocol telephone. The catalog mail order company has only one paid trunk line instead of hundreds of trunk lines to allow inbound calls to each customer service person. That ONE 1-800 analog telephone and one paid trunk line connects to a call forwarding manager (CFM) box at the catalog mail order company. When a customer call comes in to the 1-800 number, the CFM generates a request to forward the current call to the voice gateway, for completion to any one of the Internet Protocol telephones. The CFM could even request to forward the call to a designated Internet Protocol telephone based on a predetermined configuration setup or DNIS information.

Grounds of Rejection

Whether the subject matter of claims 25-33 is supported in the original disclosure.

Whether the subject matter of any of claims 1-33 is obvious in light of the cited prior art.

Argument

The Examiner's 112, first paragraph rejection is based on his assertion that the amendment made to claim 25 is not supported by the specification. The Examiner states "[a]ccording to [the] amended limitation of [the] claim, data can be selected from both 'dialed number information service data and said automatic number identification data', whereas [the] specification discloses either dialed number information service data or said automatic number identification data."

The Examiner is clearly incorrect on this point, as the delivery of either or both of ANI and DNIS data is disclosed at many places in the original application. Specifically, the paragraph bridging pages 8 and 9 reads as follows:

To facilitate such advanced functions, in this embodiment the call forwarding manager receives dialed number information service (DNIS) data regarding an analog telephone call and forwards the DNIS data as part of requesting gateway service. The DNIS data may be used, for example, in identifying an Internet protocol telephone as a recipient of an analog telephone call. The call forwarding manager may **also** receive automatic number identification (ANI) data regarding an analog telephone call and forward it as part of a request for service. The ANI data can also be used in identifying an Internet protocol telephone as a recipient of the analog telephone call. DNIS and ANI data may also be used in voice response systems implemented by the call manager.
[emphasis added]

This text clearly discloses that both ANI and DNIS can be sent from the call forwarding manager. Also, Fig. 2B, step 124 shows "CFM captures DNIS (and optionally ANI) of incoming call." [emphasis added] Clearly this text discloses the capture of both DNIS and ANI. Step 126 in that same figure shows "CFM generates VoIP request message to call manager along with DNIS and ANI using IP protocol." [emphasis added] Clearly, this text discloses forwarding DNIS and ANI data. Finally, as originally filed, claim 25 recited

delivering a request for service including one or more of said dialed number information service or automatic number identification data [emphasis added]

which also clearly recites the capture and delivery of both DNIS and ANI data, as well as either of them individually.

Applicant therefore submits that the Examiner's 35 U.S.C. 112, first paragraph, rejection is unsound and should be reversed. As to the Examiner's rejection under 35 U.S.C. 103, each rejection relies upon the Jones et al. patent for disclosing a call forwarding manager as claimed. However, Jones does not show this device or a device with its function. Jones describes an analog telephone with a device aiding the analog telephone to make or receive call over the public switched telephone network (PSTN) or voice over IP (VoIP). Jones' system detects whether an incoming call is from the PSTN or VoIP, assertedly based on a unique ring tone, or a call waiting tone generated if the user is on a call. Jones also claims that the device aiding the analog telephone can detect a predetermined signal coming from the analog telephone indicating that it is trying to make an out going call using the PSTN or VoIP.

Jones' device that aids the analog telephone is nothing like the claimed call forwarding manager. Jones' device is an analog adapter (analog to VoIP converter); it converts an analog telephone call to VoIP. This is not the function presently claimed. The present claims 1 and 13 recite a function not accomplished by the Jones adapter, namely, receiving an analog call, and generating requests for service to a separate voice gateway that itself manages conversion between analog and VoIP standards. Claims 1 and 13 specifically recite a call forwarding manager "receiving an analog telephone call from [an] analog telephone line ... and

responding to said reception by generating a request for service from [a] voice gateway”.

Nothing in Jones suggests such a function.

In his Final Rejection, the Examiner has noted that Jones discloses a “network premises gateway” 10 that enables access to a WAN and the Internet from IP telephones at a household. However, this device is not described as “receiving an analog telephone call from an analog telephone line ... and responding to said reception by generating a request for service from a voice gateway” and the Examiner has not cited any such function in Jones or any other prior art.

Claim 25 recites a call forwarding manager with the ability to receive DNIS or ANI information from an analog telephone call, and deliver a request including one or both. Specifically, the claim recites “delivering a request for service with data selected from the group comprising said dialed number information service data and said automatic number identification data.” Nothing in Jones suggests such a function.

In his Final Rejection, the Examiner has stated that Jones describes his H.323 engine 36 as “a standard H.323 engine for supporting VoIP-based calls.” and that “H.323 contains complete text to explain how to provide caller identification services with H.323. However, this discussion of H.323 and its functions, does not constitute a disclosure of a call forwarding manger that can receive DNIS or ANI information from an analog telephone call, and deliver “a request for service with data selected from the group comprising said dialed number information service data and said automatic number identification data.” There is no description of such a device in Jones and the Examiner has not cited any such function in Jones or any other prior art.

In short, nothing in Jones relates to forwarding or transferring incoming calls between their original termination point and a different termination point, for any reason much less for the reason of converting between analog and IP telephony, and nothing in Jones describes a device that would facilitate such a function.

The Examiner's rejections for obviousness are each premised upon the Examiner's assertions that Jones discloses a call forwarding manager as claimed. As Jones does not disclose what is claimed, each of these rejections must fail. Applicant disagrees strongly with both the application and interpretation of each other item of prior art relied upon, but for the purposes of brevity those disagreements need not be elaborated here.

Accordingly, Applicant submits that the Examiner's rejection is in error and a reversal of the rejection and allowance of the claims is therefore requested.

Respectfully submitted,
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Claim Appendix

1. (Previously presented) A method of providing Internet telephony to a subscriber premises via a subscriber Internet connection to said subscriber premises, using an analog telephone connection, comprising

providing a voice gateway converting Internet telephony and analog telephony standards to facilitate the use of Internet and analog telephony by said subscriber,

providing a call forwarding manager connected to said analog telephone connection,

providing an Internet protocol telephone at said subscriber premises,

receiving an analog telephone call from said analog telephone line at said call forwarding manager, and responding to said reception by generating a request for service from said voice gateway,

generating an Internet telephone connection from said voice gateway to said Internet protocol telephone at said subscriber premises in response to said request for service from said call forwarding manager, and

connecting said analog telephone call via said voice gateway to said Internet protocol telephone via said subscriber Internet connection.

2. (Original) The method of claim 1 wherein said call forwarding manager is located at said subscriber premises and said analog telephone line connects to said subscriber premises.

3. (Original) The method of claim 1 wherein said voice gateway is remote from said subscriber premises.

4. (Original) The method of claim 3 wherein said voice gateway is utilized by multiple subscribers simultaneously to provide conversion between Internet telephony and analog telephony standards.

5. (Previously presented) The method of claim 1 further comprising providing a call manager, said call manager receiving said request for service from said call forwarding manager, said call manager establishing the Internet telephone connection from said voice gateway to said Internet protocol telephone for use by said voice gateway.

6. (Previously presented) The method of claim 5 wherein said call manager performs a data driven call management application.

7. (Previously presented) The method of claim 1 wherein said call manager provides enhanced services to said subscriber selected from the group comprising: establishing pick groups, hunt groups, call forwarding and voice messaging for Internet protocol telephone of said subscriber.

8. (Original) The method of claim 1 wherein said call forwarding manager receives dialed number information service data regarding said analog

telephone call and forwards said dialed number information service data as part of said request for service.

9. (Original) The method of claim 8 wherein said dialed number information service data is used in identifying said Internet protocol telephone as a recipient of said analog telephone call.

10. (Original) The method of claim 9 wherein said call forwarding manager receives automatic number identification data regarding said analog telephone call and forwards said automatic number identification data as part of said request for service.

11. (Original) The method of claim 10 wherein said automatic number identification data is used in identifying said Internet protocol telephone as a recipient of said analog telephone call.

12. (Original) The method of claim 1 wherein said analog telephone call is connected to said voice gateway by delivery of one or more of TAPI, JTAPI, SCTP, or proprietary interface commands to a telecommunications exchange switch.

13. (Previously presented) A system for providing Internet telephony to a subscriber premises via a subscriber Internet connection to said subscriber premises, using an analog telephone connection, comprising

a voice gateway converting Internet telephony and analog telephony standards to facilitate the use of Internet and analog telephony by said subscriber,

a call forwarding manager connected to said analog telephone connection,

said call forwarding manager receiving an analog telephone call from an analog telephone line, and responding to said reception by generating a request for service from said voice gateway,

said voice gateway generating an Internet telephone connection to an Internet protocol telephone at said subscriber premises in response to said request for service from said call forwarding manager, and connecting said analog telephone call via said voice gateway to said Internet protocol telephone via said subscriber Internet connection.

14. (Previously presented) The system of claim 13 wherein said call forwarding manager is located at said subscriber premises and said analog telephone line connects to said subscriber premises.

15. (Previously presented) The system of claim 13 wherein said voice gateway is remote from said subscriber premises.

16. (Previously presented) The system of claim 15 wherein said voice gateway is coupled to Internet protocol telephones located at the premises of multiple subscribers, to provide conversion between Internet telephony and analog telephony standards.

17. (Previously presented) The system of claim 13 further comprising a call manager, said call manager receiving said request for service from said call forwarding manager, said call manager establishing the Internet telephone connection from said voice gateway to said Internet protocol telephone for use by said voice gateway.

18. (Previously presented) The system of claim 17 wherein said call manager performs a data driven call management application.

19. (Previously presented) The system of claim 13 wherein said call manager provides enhanced services to said subscriber including one or more of establishing pick groups, hunt groups, call forwarding, voice driven local directory service and voice messaging for Internet protocol telephone of said subscriber.

20. (Previously presented) The system of claim 13 wherein said call forwarding manager receives dialed number information service data regarding

said analog telephone call and forwards said dialed number information service data as part of said request for service.

21. (Previously presented) The system of claim 20 wherein said dialed number information service data is used in identifying said Internet protocol telephone as a recipient of said analog telephone call.

22. (Previously presented) The system of claim 21 wherein said call forwarding manager receives automatic number identification data regarding said analog telephone call and forwards said automatic number identification data as part of said request for service.

23. (Previously presented) The system of claim 22 wherein said automatic number identification data is used in identifying said Internet protocol telephone as a recipient of said analog telephone call.

24. (Previously presented) The system of claim 13 wherein said analog telephone call is connected to said voice gateway by delivery of one or more of TAPI, JTAPI, SCTP, or proprietary interface commands to a telecommunications exchange switch.

25. (Previously presented) A call forwarding manager for use in interfacing Internet telephony to a subscriber premises using an analog telephone line, comprising

an analog telephone connection for connection to said analog telephone line to capture data selected from the group comprising dialed number information service data or and automatic number identification data, and

a digital communications connection for delivering a request for service with data selected from the group comprising said dialed number information service data and said automatic number identification data.

26. (Original) The call forwarding manager of claim 25 wherein said digital communications connection comprises a serial connection.

27. (Previously presented) The call forwarding manager of claim 26 wherein said serial connection comprises one or more of USB, Firewire and Ethernet.

28. (Original) The call forwarding manager of claim 25 wherein said digital communications connection comprises a parallel connection.

29. (Original) The call forwarding manager of claim 28 wherein said parallel connection comprises one or more of PCI, ISA and IEEE-488.

30. (Original) The call forwarding manager of claim 25 wherein said request for service is delivered as an IP packet.

31. (Original) The call forwarding manager of claim 25 further comprising firewall and VPN systems for managing communications via said digital communications connection.

32. (Original) The call forwarding manager of claim 25 further comprising an ADSL, cable, or wireless modem.

33. (Original) The call forwarding manager of claim 25 further comprising quality of service and RSVP service systems for managing communications via said digital communications connection.

Evidence Appendix

None.

Related Proceedings Appendix

None.